

Amendments to the Claims

This listing of claims will replace all prior versions,
and listings of claims in the application:

Listing of Claims:

Claims 1-17 (Cancelled).

18. (Currently amended) ~~The gene fragment of claim 9~~
An isolated DNA molecule coding for a single chain Fv (scFv) of a
human anti-human MCP-1 antibody that binds to human MCP-1 and
inhibits the activity of inhibiting the invasion of inflammatory
cells and/or the cell migration mediated by MCP-1, said DNA
molecule consisting of a DNA coding for a VH chain of said human
anti-human MCP-1 antibody combined with a DNA coding for a VL
chain of said human anti-human MCP-1 antibody, wherein
complementarity determining regions (CDR1 to CDR3) of said VH
chain have the following amino acid sequences:

CDR1: Ser Tyr Ala Ile Ser (SEQ ID NO: 3)

CDR2: Gly Phe Asp Pro Glu Asp Gly Glu Thr Ile Tyr Ala Gln

Lys Phe Gln Gly (SEQ ID NO: 4)

CDR3: Asp Leu Gly Gly Gly Asp Tyr Tyr Tyr Gly Met Asp Val

(SEQ ID NO: 5)

~~and/or complementarity~~ complementarity determining regions (CDR1 to
CDR3) of said VL chain have the following amino acid sequences:

CDR1: Arg Ser Ser Gln Ser Ile Asn Thr Tyr Leu His (SEQ ID NO: 8)

CDR2: Ala Ala Ser Thr Leu Gln Ser (SEQ ID NO: 9)

CDR3: Gln Gln Ser Phe Thr Thr Pro Leu Thr (SEQ ID NO: 10).

19. (Currently amended) ~~The gene fragment of claim 9~~ An isolated DNA molecule coding for a single chain Fv (scFv) of a human anti-human MCP-1 antibody that binds to human MCP-1 and inhibits the activity of inhibiting the invasion of inflammatory cells and/or the cell migration mediated by MCP-1, said DNA molecule consisting of a DNA coding for a VH chain of said human anti-human MCP-1 antibody combined with a DNA coding for a VL chain of said human anti-human MCP-1 antibody, wherein said VH chain has an amino acid sequence depicted in SEQ ID NO: 2 ~~or the amino acid sequence depicted in SEQ ID NO: 2 in which one or several amino acids are deleted, substituted or added and/or and~~ said VL chain has the amino acid sequence depicted in SEQ ID NO: 7 ~~or the amino acid sequence depicted in SEQ ID NO: 7 in which one or several amino acids are deleted, substituted or added.~~

20. (Currently amended) ~~The gene fragment~~ isolated DNA molecule of claim 19, wherein said ~~CH~~ VH chain has the amino acid sequence depicted in SEQ ID NO: 2 and ~~or~~ said VL chain has the amino acid sequence depicted in SEQ ID NO: 7.

21. (Currently amended) ~~The gene fragment of claim 10~~ An isolated DNA molecule coding for a human anti-human MCP-1 antibody that binds to human MCP-1 and inhibits the activity of

inhibiting the invasion of inflammatory cells and/or the cell migration mediated by MCP-1, said DNA molecule consisting of a DNA coding for a VH chain of said human anti-human MCP-1 antibody combined with a human antibody VH chain gene and a DNA coding for a VL chain of said human anti-human MCP-1 antibody combined with a human antibody VL chain gene, wherein complementarity determining regions (CDR1 to CDR3) of said VH chain have the following amino acid sequences:

CDR1: Ser Tyr Ala Ile Ser (SEQ ID NO: 3)

CDR2: Gly Phe Asp Pro Glu Asp Gly Glu Thr Ile Tyr Ala Gln
Lys Phe Gln Gly (SEQ ID NO: 4)

CDR3: Asp Leu Gly Gly Gly Asp Tyr Tyr Tyr Gly Met Asp Val
(SEQ ID NO: 5)

~~and/or~~ complementarity determining regions (CDR1 to CDR3) of said VL chain have the following amino acid sequences:

CDR1: Arg Ser Ser Gln Ser Ile Asn Thr Tyr Leu His (SEQ ID NO: 8)

CDR2: Ala Ala Ser Thr Leu Gln Ser (SEQ ID NO: 9)

CDR3: Gln Gln Ser Phe Thr Thr Pro Leu Thr (SEQ ID NO: 10).

22. (Currently amended) ~~The gene fragment of claim 10~~
An isolated DNA molecule coding for a human anti-human MCP-1 antibody that binds to human MCP-1 and inhibits the activity of inhibiting the invasion of inflammatory cells and/or the cell migration mediated by MCP-1, said DNA molecule consisting of a DNA coding for a VH chain of said human anti-human MCP-1 antibody

combined with a human antibody VH chain gene and a DNA coding for a VL chain of said human anti-human MCP-1 antibody combined with a human antibody VL chain gene, wherein said VH chain has an amino acid sequence depicted in SEQ ID NO: 2 ~~or the amino acid sequence depicted in SEQ ID NO: 2 in which one or several amino acids are deleted, substituted or added and/or~~ and said VL chain has the amino acid sequence depicted in SEQ ID NO: 7 ~~or the amino acid sequence depicted in SEQ ID NO: 7 in which one or several amino acids are deleted, substituted or added.~~

23. (Currently amended) ~~The gene fragment~~ isolated DNA molecule of claim 22, wherein said ~~CH~~ VH chain has the amino acid sequence depicted in SEQ ID NO: 2 ~~and/or~~ said VL chain has the amino acid sequence depicted in SEQ ID NO: 7.

24. (Currently amended) ~~The gene fragment of claim 11~~
An isolated DNA molecule coding for a human anti-human MCP-1 antibody fragment that binds to human MCP-1 and inhibits the activity of inhibiting the invasion of inflammatory cells and/or the cell migration mediated by MCP-1, said DNA molecule consisting of the DNA coding for the VH chain of said human anti-human MCP-1 antibody combined with a portion of a human antibody VH chain gene and a DNA coding for a VL chain of said human anti-human MCP-1 antibody combined with a portion of a human antibody VL chain gene, wherein complementarity determining regions (CDR1

to CDR3) of said VH chain have the following amino acid sequences:

CDR1: Ser Tyr Ala Ile Ser (SEQ ID NO: 3)

CDR2: Gly Phe Asp Pro Glu Asp Gly Glu Thr Ile Tyr Ala Gln
Lys Phe Gln Gly (SEQ ID NO: 4)

CDR3: Asp Leu Gly Gly Gly Asp Tyr Tyr Tyr Gly Met Asp Val
(SEQ ID NO: 5)

and/or complementarity determining regions (CDR1 to CDR3) of said VL chain have the following amino acid sequences:

CDR1: Arg Ser Ser Gln Ser Ile Asn Thr Tyr Leu His (SEQ ID NO: 8)

CDR2: Ala Ala Ser Thr Leu Gln Ser (SEQ ID NO: 9)

CDR3: Gln Gln Ser Phe Thr Thr Pro Leu Thr (SEQ ID NO: 10).

25. (Currently amended) ~~The gene fragment of claim 11~~
An isolated DNA molecule coding for a human anti-human MCP-1
antibody fragment that binds to human MCP-1 and inhibits the
activity of inhibiting the invasion of inflammatory cells and/or
the cell migration mediated by MCP-1, said DNA molecule
consisting of the DNA coding for the VH chain of said human anti-
human MCP-1 antibody combined with a portion of a human antibody
VH chain gene and a DNA coding for a VL chain of said human anti-
human MCP-1 antibody combined with a portion of a human antibody
VL chain gene, wherein said VH chain has an amino acid sequence
depicted in SEQ ID NO: 2 ~~or the amino acid sequence depicted in~~
~~SEQ ID NO: 2 in which one or several amino acids are deleted,~~

~~substituted or added and/or~~ and said VL chain has the amino acid sequence depicted in SEQ ID NO: 7 ~~or the amino acid sequence depicted in SEQ ID NO: 7 in which one or several amino acids are deleted, substituted or added.~~

26. (Currently amended) The ~~gene fragment~~ isolated DNA molecule of claim 25, wherein said ~~CH~~ VH chain has the amino acid sequence depicted in SEQ ID NO: 2 and/or said VL chain has the amino acid sequence depicted in SEQ ID NO: 7.

27. (Currently amended) ~~The gene fragment of claim 13~~
An isolated DNA molecule coding for a human anti-human MCP-1 antibody fragment that binds to human MCP-1 and inhibits the activity of inhibiting the invasion of inflammatory cells and/or the cell migration mediated by MCP-1, said DNA molecule consisting of the scFv coding DNA molecule of claim 18 combined with either a portion of a human antibody VH chain gene or with a portion of a human antibody VL chain gene, wherein complementarity determining regions (CDR1 to CDR3) of said VH chain have the following amino acid sequences:

CDR1: Ser Tyr Ala Ile Ser (SEQ ID NO: 3)

CDR2: Gly Phe Asp Pro Glu Asp Gly Glu Thr Ile Tyr Ala Gln

Lys Phe Gln Gly (SEQ ID NO: 4)

CDR3: Asp Leu Gly Gly Gly Asp Tyr Tyr Tyr Gly Met Asp Val

(SEQ ID NO: 5)

and~~/or~~ complementarity determining regions (CDR1 to CDR3) of said VL chain have the following amino acid sequences:

CDR1: Arg Ser Ser Gln Ser Ile Asn Thr Tyr Leu His (SEQ ID NO: 8)

CDR2: Ala Ala Ser Thr Leu Gln Ser (SEQ ID NO: 9)

CDR3: Gln Gln Ser Phe Thr Thr Pro Leu Thr (SEQ ID NO: 10).

28. (Currently amended) ~~The gene fragment of claim 13~~
isolated DNA molecule coding for a human anti-human MCP-1
antibody fragment that binds to human MCP-1 and inhibits the
activity of inhibiting the invasion of inflammatory cells and/or
the cell migration mediated by MCP-1, said DNA molecule
consisting of the scFv coding DNA molecule of claim 18 combined
with either a portion of a human antibody VH chain gene or with a
portion of a human antibody VL chain gene, wherein said VH chain
has an amino acid sequence depicted in SEQ ID NO: 2 ~~or the amino~~
~~acid sequence depicted in SEQ ID NO: 2 in which one or several~~
~~amino acids are deleted, substituted or added and/or~~ and said VL
chain has the amino acid sequence depicted in SEQ ID NO: 7 ~~or the~~
~~amino acid sequence depicted in SEQ ID NO: 7 in which one or~~
~~several amino acids are deleted, substituted or added.~~

29. (Currently amended) ~~The gene fragment~~ isolated DNA
molecule of claim 28, wherein said ~~CH~~ VH chain has the amino acid
sequence depicted in SEQ ID NO: 2 and~~/or~~ said VL chain has the
amino acid sequence depicted in SEQ ID NO: 7.

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Claims 30-53 (Cancelled).